Fetal movements and perinatal outcome

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Background

450 children are stillborn each year. This has been almost constant during the past 25 years. Low maternal awareness of fetal activity is associated with an increased risk of having a small for gestational age infant, and women who experience reduced fetal movements are at increased risk of stillbirth. Mothers-to-be who observe a decrease in the frequency of movements tend to wait a rather long time before they contact health care professionals and the signs of fetal compromise are often normalized by the women. There is no evidence that a specific limit for what is to be viewed as reduced fetal movement is any better than the belief on the part of the mother that a decrease in fetal movement has occurred as concerns to detect a fetal compromise.

Main objective

To investigate perinatal outcomes for women who seek consultation due to reduced fetal movements in late pregnancy and what factors hinders or triggers them to seek care. To investigate how mothers to stillborn babies experienced fetal movements the days before the confirmation of their unborn baby’s death.

Questions

1. What type of fetal movements do pregnant women who seek consultation due to reduced fetal movements after 28 gestational weeks experience?
2. What factors hinders or triggers pregnant women to seek care if they experiences reduced fetal movements after gestational week 28?
3. What is the perinatal outcome for women who have had an medical consultation due to reduced fetal movements after gestational 28?
4. How remember mothers to stillborn babies the frequency and quality of fetal movements, before the death of their unborn baby was confirmed?

Study design, material and methods

Data collection 1:
All women (gestational week 28+) in the Stockholm region, who seek consultation due to reduced fetal movements during one year (2014). We will investigate how the women experienced the fetal movements before their consultation. We will focus on prehospital delay and what factors determine the time it takes until women seek medical consultation. Approximately 2000 women are expected. They will receive a questionnaire at each centre (n=7). We will follow-up of her child in the medial birth register. We use Apgar score below seven, five minutes after birth, as the primary endpoint.

Data collection 2:
246 women with a stillbirth after 28 gestational weeks in Sweden, in 2009 to 2013, answered an open question in a web-based questionnaire, “How do you remembered the fetal movements 48 hours before the intrauterine death was confirmed?”. The women are self recruited. Using the qualitative method Content Analyses, we will categorize the womens descriptions of how they experienced the quality of their unborn baby’s movements.
Hypothesis:
Prehospital delay (>48 hours) will predict Apgar status after birth.
Certain means of the mother’s monitoring of quality, frequency and intensity of fetal movements predicts the possibility to detect important deviations.

The doctoral thesis will include four articles:

Study I
This study focus on how women (>28 gestational week) experienced the fetal movements (quality, frequency and intensity) 48 hours before they seek consultation for reduced fetal movements (data collection 1).

Study II
This study focus on prehospital delay; what factors determine the time it takes until women with reduce fetal movements seeks medical consultation (data collection 1).

Study III
This study focus on perinatal outcomes among all women seeking care for reduce fetal movements during one year (2014) in the Stockholm region (data collection 1).

Study IV
This study focus on how women remember their unborn baby’s movements (quality, frequency and intensity) 48 hours before the confirmation of the stillbirth (data collection 2).

Significance
Apart from grief, stillbirth can give psychological morbidity for the parents and other family members. Thus, if the project gives knowledges that, when implemented, decrease the percentage children born dead, it will give considerable public-health benefit.